



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,659	07/31/2003	Gregory P. Hertrich	495812005400	3578
25226	7590	07/29/2005	EXAMINER	
MORRISON & FOERSTER LLP 755 PAGE MILL RD PALO ALTO, CA 94304-1018			WATKO, JULIE ANNE	
			ART UNIT	PAPER NUMBER
			2653	

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/632,659	HERTRICH, GREGORY P.	
	Examiner	Art Unit	
	Julie Anne Watko	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 March 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 22-40 and 50-54 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,15-21,41-43 and 47-49 is/are rejected.
- 7) Claim(s) 3-14 and 44-46 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/09/2003.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I, claims 1-21 and 41-49 in the reply filed on March 24, 2005, is acknowledged.
2. Claims 22-40 and 50-54 are withdrawn from consideration as drawn to a non-elected method.

Specification

3. The disclosure is objected to because of the following informalities: The specification refers to "unknown" serial numbers for co-pending patent applications. See page 18. Applicant is advised to provide the serial numbers, along with an update on the status of the applications (e.g. patent no., abandoned, etc.).

Appropriate correction is required.

Claim Objections

4. Claims 16 and 41 are objected to because of the following informalities:
Claim 16 recites the limitation "the shutter opener rotates about the shutter opener axis" in lines 3-4. The Examiner suggests -- the shutter body member [opener] rotates about the shutter opener axis -- for consistency with "a shutter body member rotatable about a shutter opener axis" in claim 14, line 2.

Claim 41 recites the limitation "a carriage assembly for receiving a cartridge containing a data storage medium and having a movable shutter having a shutter lock" in lines 3-4. It is unclear whether the carriage has the shutter or whether the cartridge has the shutter. The

Examiner suggests -- a carriage assembly for receiving a cartridge containing a data storage medium, said cartridge [and] having a movable shutter [having] with a shutter lock --.

5. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation “a lock release portion” in line 3. It is unclear whether this limitation refers to the “lock release” of claim 13, line 2, or to some additional part.

Claims 16-17 are indefinite by virtue of their dependency from an indefinite claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai et al (US Pat. No. 6154431).

As recited in claim 1, Arai et al show a data drive (see especially Figs. 1-3) comprising: drive base 1; a data transfer mechanism 81 coupled to the drive base; a carriage assembly 9 for receiving a cartridge 201 containing a data storage medium; and a carriage assembly actuator G

coupled to the drive base for translating the carriage assembly 9 to expose a plurality of radial positions of the data storage medium to the data transfer mechanism 81.

As recited in claim 18, Arai et al show that the carriage assembly 9 further comprises a shutter opener (including 24; see Fig. 1).

As recited in claim 19, Arai et al show that the shutter opener is configured to begin opening a shutter on a cartridge after the cartridge has been received a predetermined distance into the carriage assembly (see Figs. 22-25).

As recited in claim 20, Arai et al show that the shutter opener is configured to begin opening a shutter on a cartridge after the shutter has been received in the carriage assembly (see Figs. 22-25).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al (US Pat. No. 6154431).

Arai et al show a data drive as described above.

As recited in claim 2, Arai et al are silent regarding a holographic data transfer mechanism.

Official notice is taken of the fact that it was known in the art at the time the invention was made to provide a holographic data transfer mechanism.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the data drive of Arai et al with a holographic data transfer mechanism. The rationale is as follows: one of ordinary skill in the art would have been motivated to increase data storage density as is notoriously well known in the art.

As recited in claim 21, Arai et al are silent regarding whether the shutter opener is configured to begin opening a shutter on a cartridge after at least 50% of the cartridge has been received in the carriage assembly.

Official notice is taken of the fact that it is notoriously old and well known in the data drive art to routinely modify a data drive structure in the course of routine optimization/experimentation and thereby obtain various optimized relationships including those set forth in claim 21.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the data drive of Arai et al satisfy the dimensional relationships set forth in claim 21. The rationale is as follows: one of ordinary skill in the art would have been motivated to have had the data drive of Arai et al satisfy the relationships set forth in claim 21 since it is notoriously old and well known in the data drive art to routinely modify a ~~data~~ ~~drive~~ structure in the course of routine optimization /experimentation and thereby obtain various optimized relationships including those set forth in claim 21. Moreover, absent a showing of criticality (i.e., unobvious or unexpected results), the relationships set forth in claim 21 are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

12. Claims 41-43 and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al (US Pat. No. 6154431) in view of Okamoto et al (US Pat. No. 6205105).

Arai et al show a data drive as described above.

As recited in claim 41, Arai et al show a data drive comprising a data transfer mechanism 81, a carriage assembly 9 for receiving a cartridge containing a data storage medium, said data storage medium having a movable shutter lock; and a shutter opener

As recited in claim 41, Arai et al are silent regarding a lock release for releasing a lock on the cartridge.

As recited in claim 41, Okamoto et al show a lock release 29a for releasing a lock (“shutter lock mechanism”, see col. 8, lines 25-39) on a cartridge 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to unlock a cartridge shutter with a lock release 23 in the data drive of Arai et al as taught by Okamoto et al. The rationale is as follows: one of ordinary skill in the art would have been motivated to lock and unlock the cartridge in order to prevent a shutter from inadvertently being opened outside the apparatus as taught by Okamoto et al (see col. 8, lines 25-39), but to permit data storage and retrieval inside the apparatus as is notoriously well known in the art.

As recited in claim 42, Arai et al are silent regarding a holographic data transfer mechanism.

See teachings, rationale and motivation above for claim 2.

As recited in claim 43, Arai et al show a shutter body member 24 rotatable about a shutter opener axis 25, and a shutter opener boss 23 provided on the shutter body member distal from the shutter opener axis.

Regarding claim 47: See teaching above for claim 19.

Regarding claim 48: See teaching above for claim 20.

As recited in claim 49, See teachings, rationale, and motivation above for claim 21.

Allowable Subject Matter

13. Claims 3-14 and 44-46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
14. Claims 15-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tanaka (US Pat. No. 4541086) shows a disc clamping system (see Fig. 13) wherein "motor unit 51 is mounted in rails 50, on which it can be moved back and forth. The disc 1 is mounted to the motor unit 51 as depicted in FIG. 11. A pickup head 41 is stationarily mounted. For reproduction, the motor unit 51 is moved on the rails 50 while the motor unit rotates the disc 1 so as to cause the pickup head to follow the recorded track on the disc" (see col. 6, lines 57-68).

Nakamichi et al (US Pat. No. 5561658) show a disc player wherein "turntable support 5 moves relative to optical pick-up 2 along guide shafts 6" (see col. 2, line 66-col. 3, line 15).

Nakamichi et al (US Pat. No. 5822296) show a disk playback device (see Figs. 9-11 and 15-16).

Kim et al (US Pat. No. 5894464) show a holographic pick-up (see Fig. 2).

Ohira (JP 2001-155461) shows cartridge 1 with shutter 4 and locking members 5 and 6.

Earhart (US PAP No. 20040194151 A1) shows a holographic data storage medium in a cartridge, and teaches that "holographic media is capable of storing relatively large amounts of data" (see ¶ 0002).

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2653

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (571) 272-7597.

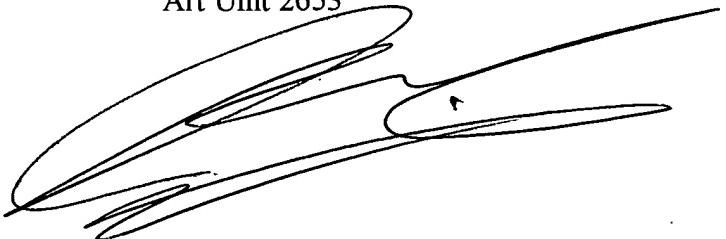
The examiner can normally be reached on Tue & Thu until 5, Wed until 3:30, Mon & Fri late.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Julie Anne Watko
Primary Examiner
Art Unit 2653

July 26, 2005

JAW

A handwritten signature in black ink, appearing to read "Julie Anne Watko". The signature is fluid and cursive, with a large, stylized 'J' at the beginning.